

Recycler States during a Tevatron shot

53 – Mine the beam into 9 Parcels.

90 Second wait.

45 – Bring over the 1st parcel.

50 – Flatten, add 2.5MHz structure and expand.

12 – Send out the 1st transfer.

46 – Get rid of 2.5 MHz structure, bring over 2nd and 3rd, then move the 2nd Parcel to the extraction orbit.

50 – Flatten, add 2.5MHz structure and expand.

12 – Send out the 2nd transfer.

47 – Get rid of the 2.5 MHz structure, bring over the 3rd parcel, then move 3rd to extraction orbit.

50 - Flatten, add 2.5MHz structure and expand.

12 - Send out the 3rd transfer.

48 – Get rid of 2.5MHz structure; bring over the 2nd and 3rd sets.

45 – Bring over the 4th parcel to the extraction orbit.

50 – Flatten, add 2.5MHz structure and expand.

12 - Send out the 4th transfer.

46 – Get rid of 2.5MHz RF structure; bring 5th and 6th parcels over, then move the 5th to the extraction orbit.

50 – Flatten, add 2.5MHz structure and expand.

12 – Send out the 5th transfer.

47 – Get rid of 2.5MHz structure, bring over the 6th parcel, then move to extraction orbit.

50 – Flatten, add 2.5MHz structure and expand.

12 – Send out the 6th transfer.

49 – Get rid of the 2.5MHz structure; bring over the last set of parcels.

45 – Move the 7th parcel to the extraction orbit.

50 – Flatten, add 2.5MHz structure and expand.

12 – Send out the 7th transfer.

46 – Get rid of 2.5MHz structure, bring over the 8th & 9th parcels, then move the 8th to the extraction orbit.

50 – Flatten, add 2.5MHz structure and expand.

12 – Send out the 8th transfer.

47 – Get rid of the 2.5MHz structure, bring over the 9th parcel, then move it to the extraction orbit.

50 – Flatten, add 2.5MHz structure and expand.

12 – Send out the 9th and last transfer.

52 – Get rid of structure. Done.

Recycler States during a Pbar Transfer

9 – Create the Injection Barrier Buckets

Transfer looping

42 – Merge the new beam with the cold beam

End Loop

10 Remove the Injection Barrier Buckets